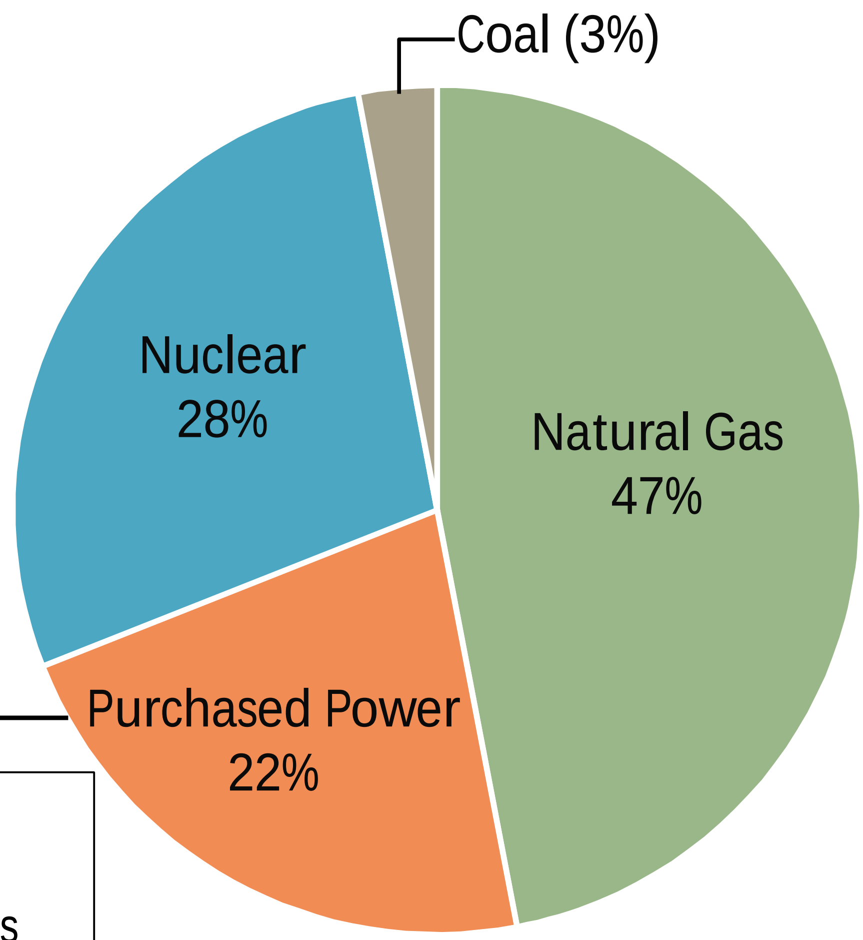
Fuel Adjustment Overview and Long Term Price Stabilization Options

LPSC B&E
May 18, 2016

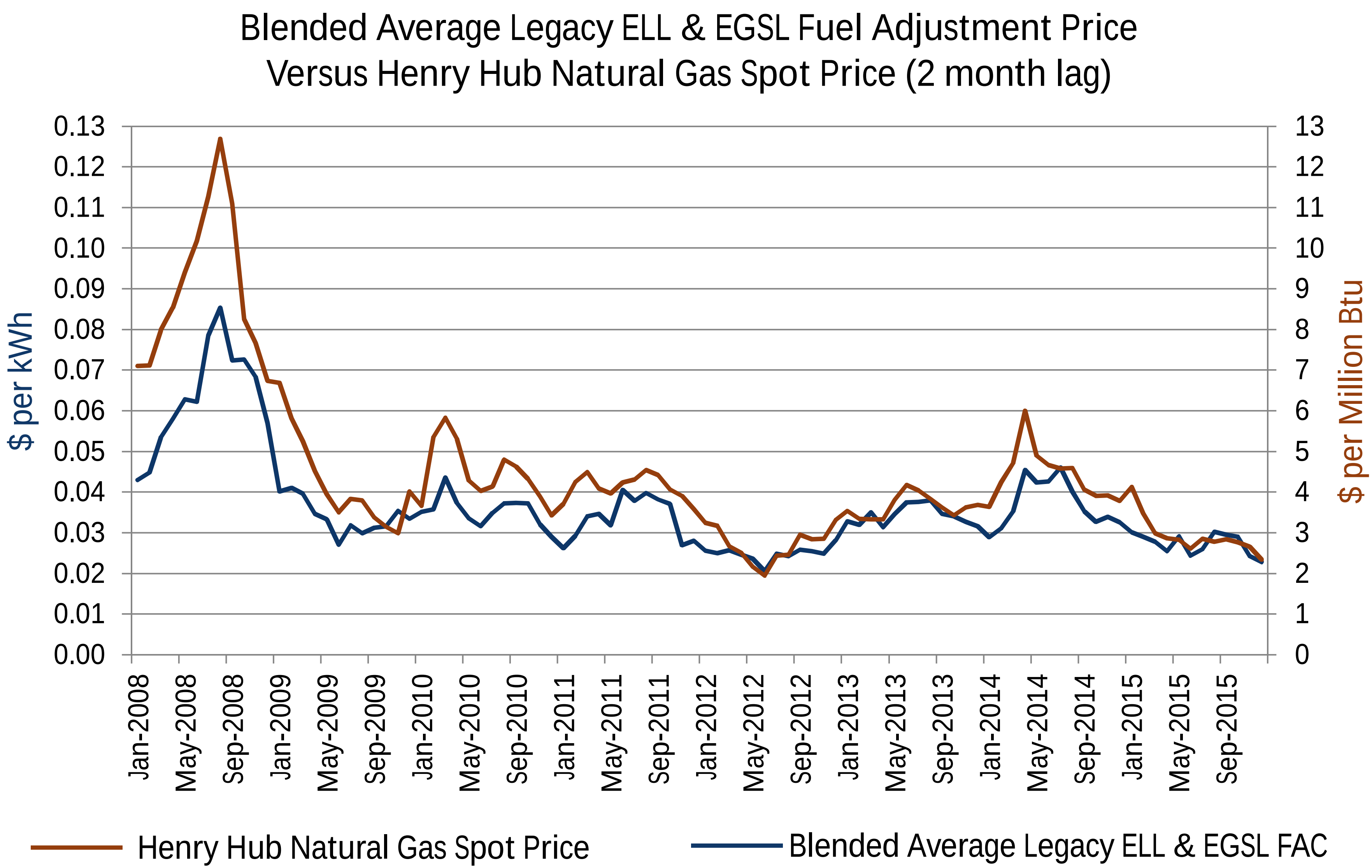
Sources of Electric Energy for ELL

Natural Gas makes up a large majority of the fuel mix for ELL

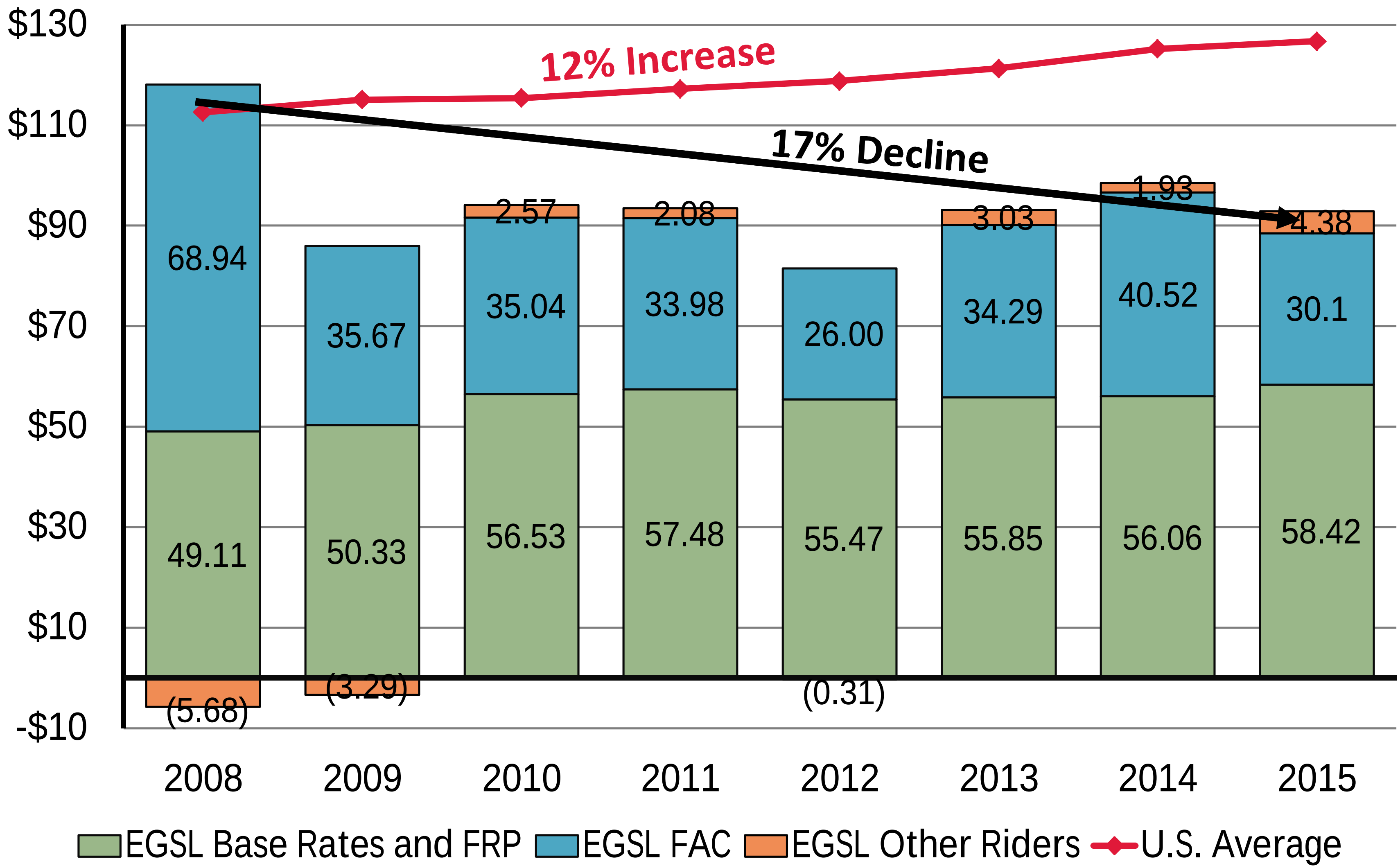


~11% MISO Market Purchases
~8% Natural Gas PPAs
~3% Other

Fuel Adjustment Clause Fluctuates with Market Prices



Legacy EGSL Typical Residential Bill (1,000 kWh)



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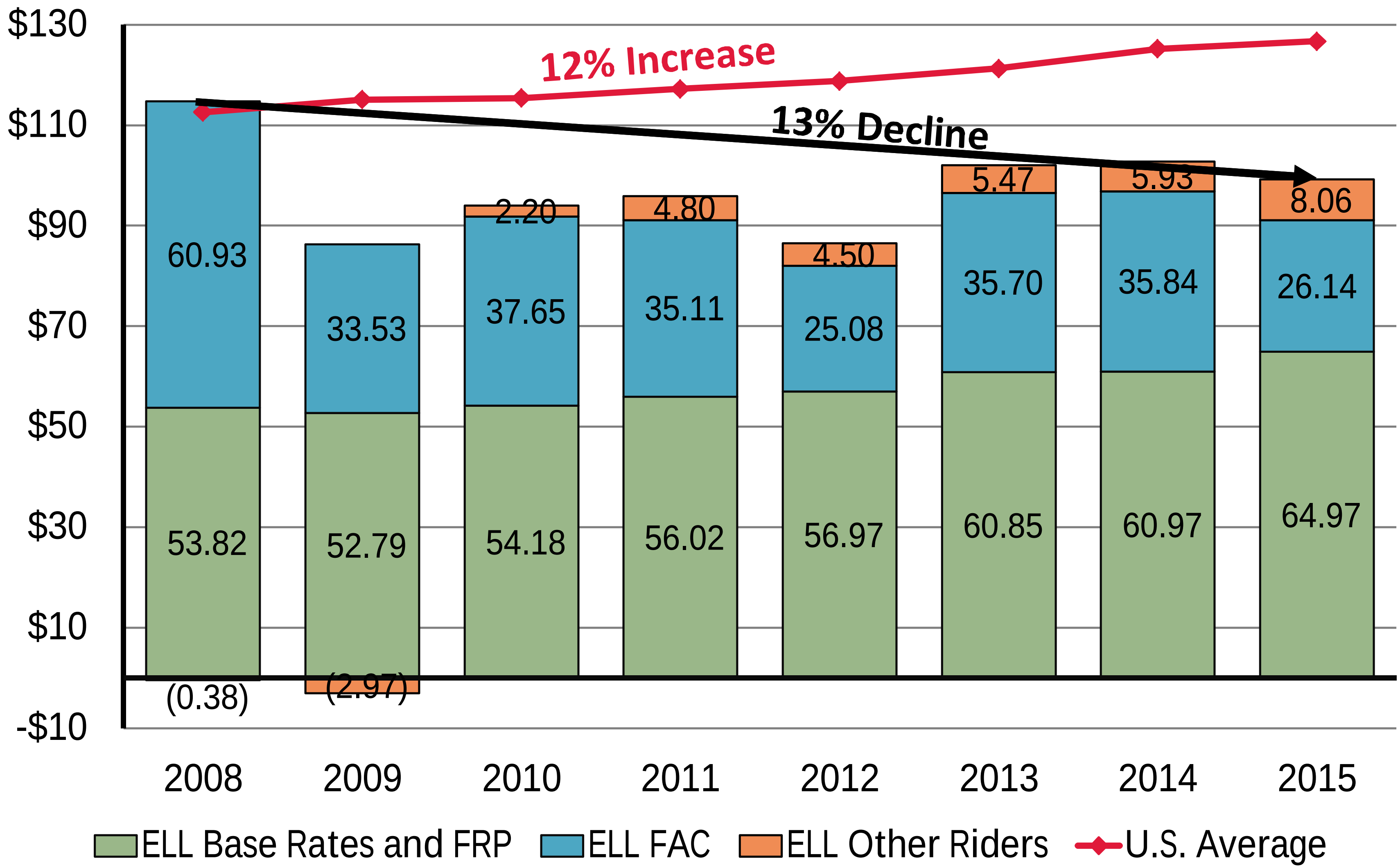
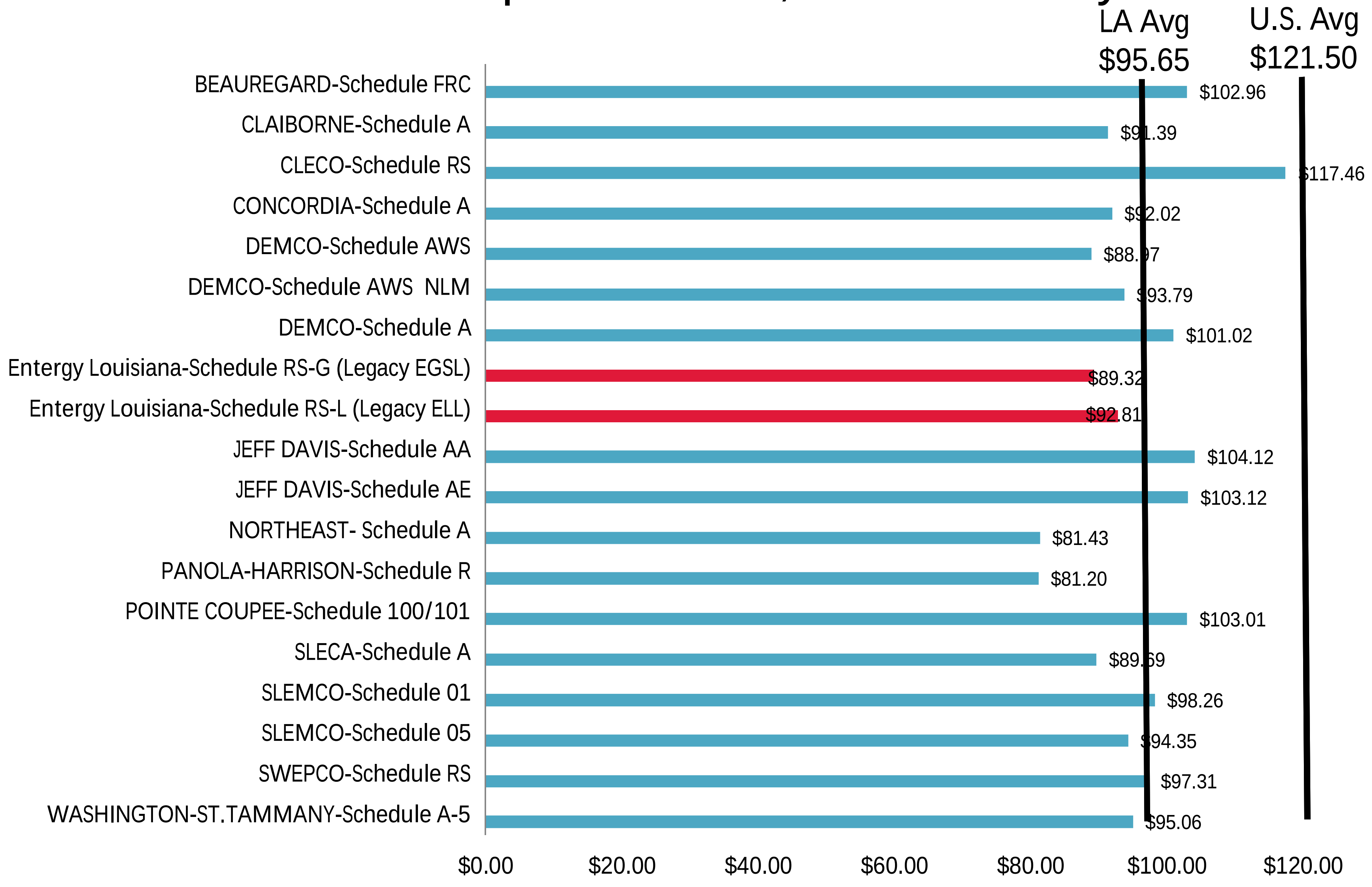
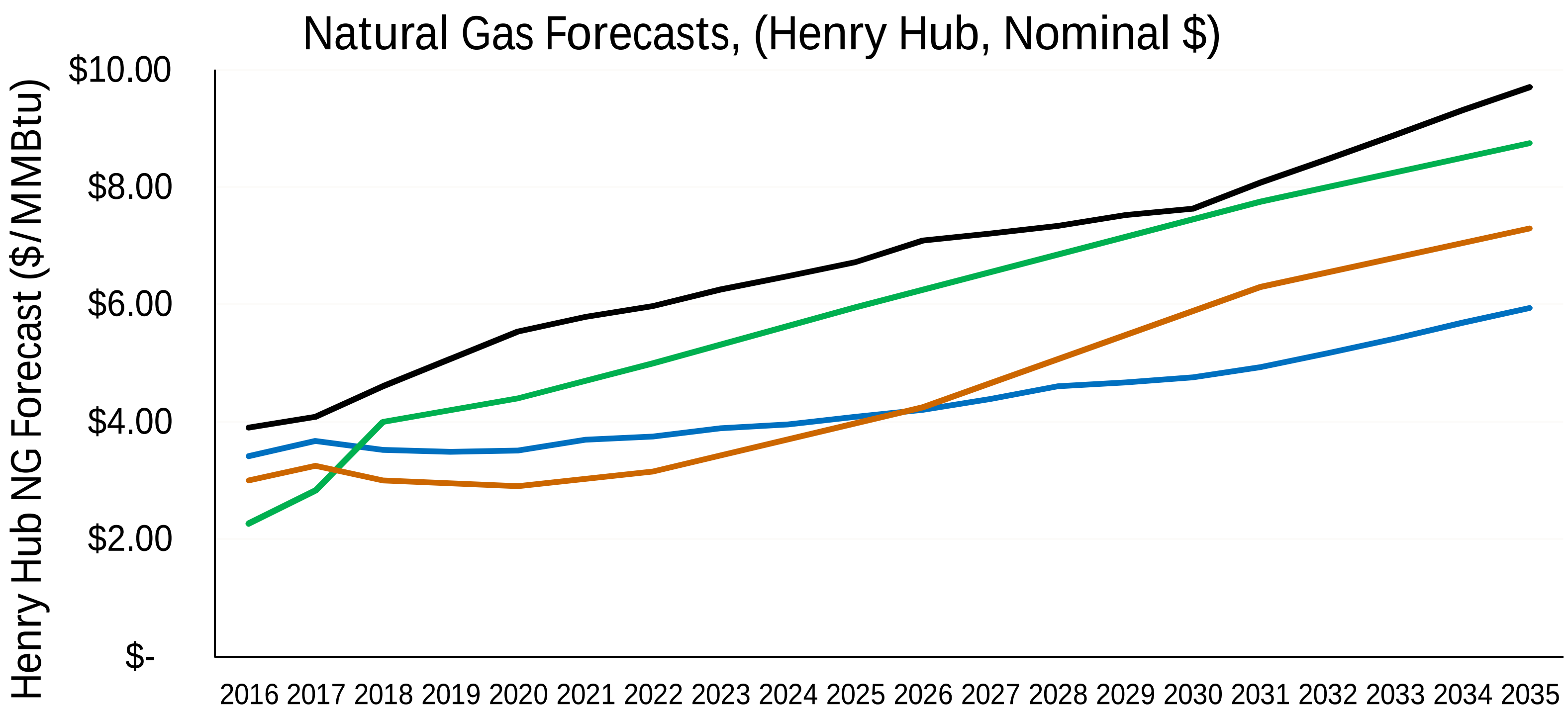


Residential Rate Comparison for 1,000 Kwh – May 2016



Recent Forecasts of Future Natural Gas Prices



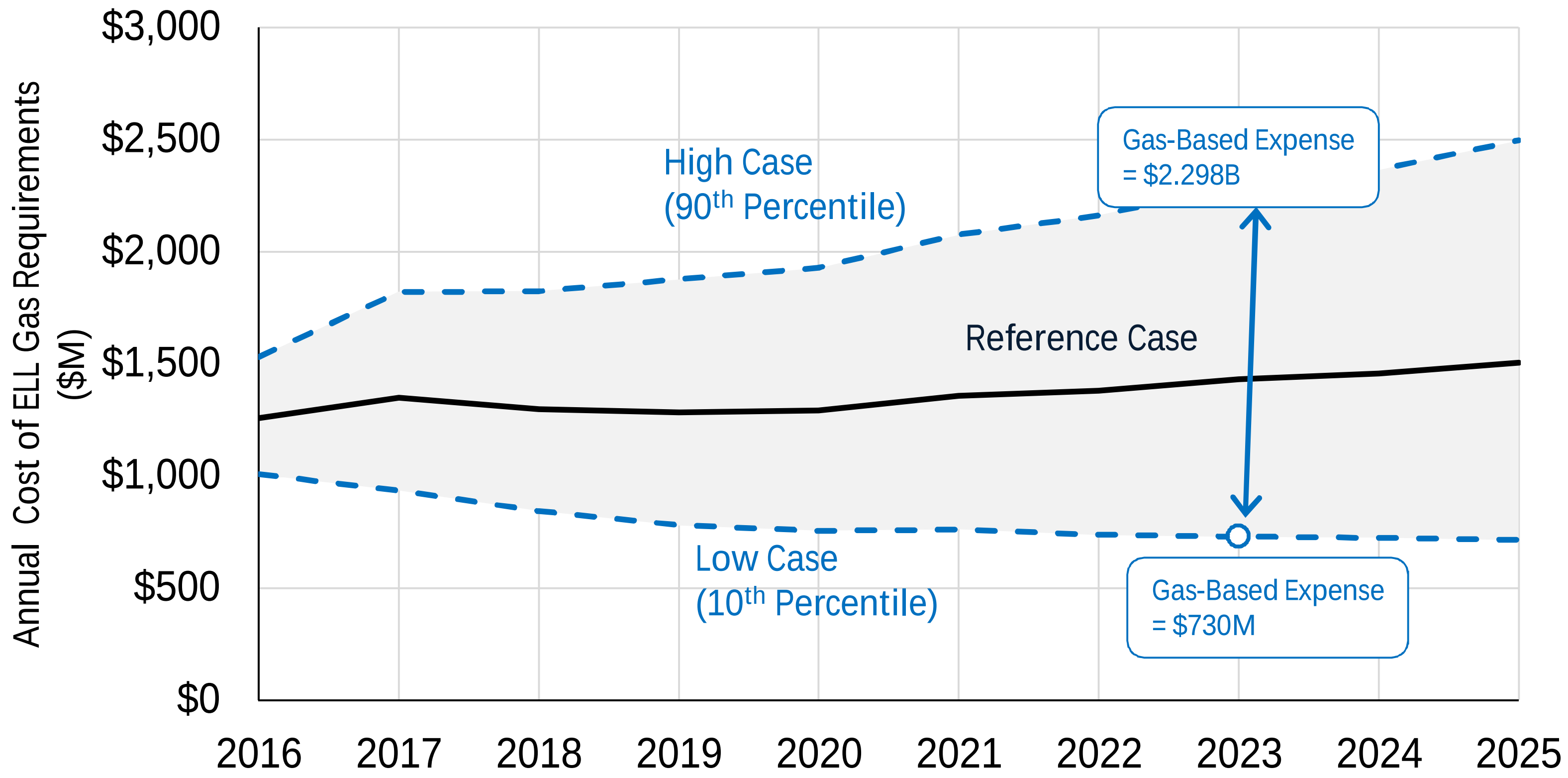
Legend	Real Levelized Cost[1] ($/MMBtu)
EIA Reference (AEO2015 Ref)	$ 5.27
EIA Low (AEO2015 HEUR)	$ 3.49
MISO MTEP17	$ 4.49
Wood Mackenzie, No Carbon	$ 3.45

[1] Assumes 2% inflation, 8% nominal discount rate

Wide Range of Uncertainty for ELL Future Costs

Opportunity now for long term hedge

Assuming ELL's gas requirements are similar to 2014 levels, uncertainty in natural gas prices could expose customers to a swing of up to $1.5B per year by 2023



Impact on average residential customer bill: $141/year - $445/year in 2023

LPSC Gas Hedging Order R-32975

Requires each IOU to identify 3 different long-term natural gas products

- Long-term, fixed-price contracts
- Gas Futures
- Gas supply / procurement

Issues Under Evaluation

Long-term, fixed-price contracts

Gas Futures Contracts

- Contracts introduce Counterparty Default Risk
  - If market prices increase above the contract price, the seller may have an incentive to default or litigate to terminate
- As a result, there may be Collateral Requirements
  - To limit the exposure of default, buyer and seller would typically be required to provide a substantial amount of collateral to each other as spot prices change – could cost hundreds of millions of dollars in addition to the cost of the contract itself
  - Capability to post collateral must be demonstrated up front ("credit support")
  - Few parties, if any, are interested or capable of meeting the collateral requirements of a long-term purchase
- Market Liquidity

Gas supply / procurement

- Ownership of molecules eliminates counterparty risk
- Introduces different risks
  - Drilling programs
  - Choice of operator
  - Ongoing capital and operating expense
- Several electric and gas LDC utilities have proposed "cost of service gas" programs to stabilize gas prices long-term for their customers
  - Florida the only one approved so far

Rationale for Long-Term Hedge Through Purchase of Reserves

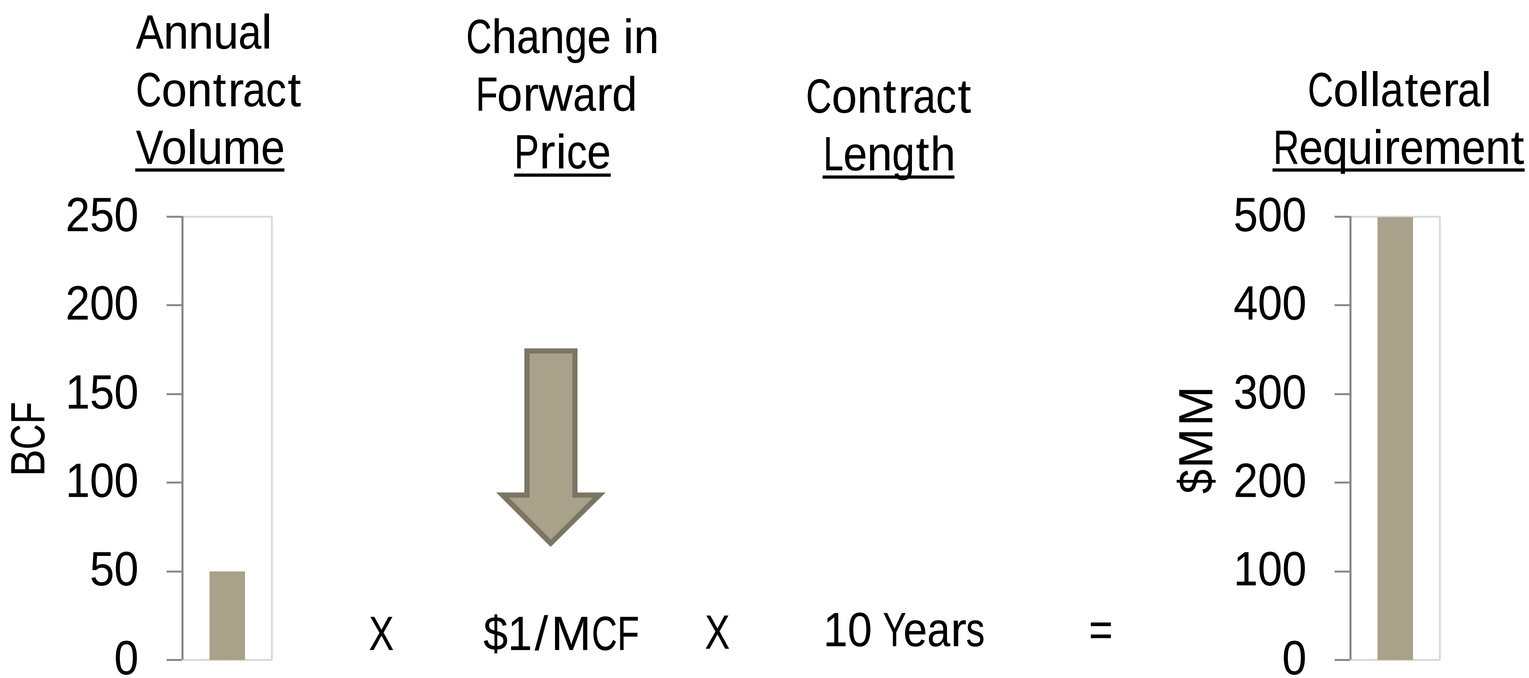
- ELL would make capital investments and acquire ownership interest in the gas molecules still in the ground
- Because ELL would own the natural gas, there is no counterparty risk of default that could require posting of collateral
- Because of the now-proven fracking technologies, the production risks are lower than in the past
- Because of low current prices, there appear to be opportunities to purchase reserves at an attractive price
- There is growing interest in doing this by other electric utilities and gas LDCs
- Evaluating 2 types of investments in gas reserves
  - Volumetric Production Payment ("VPP")
  - Non-Operated Working Interest ("NOWI")

Appendix

Forward Contract Collateral Requirements

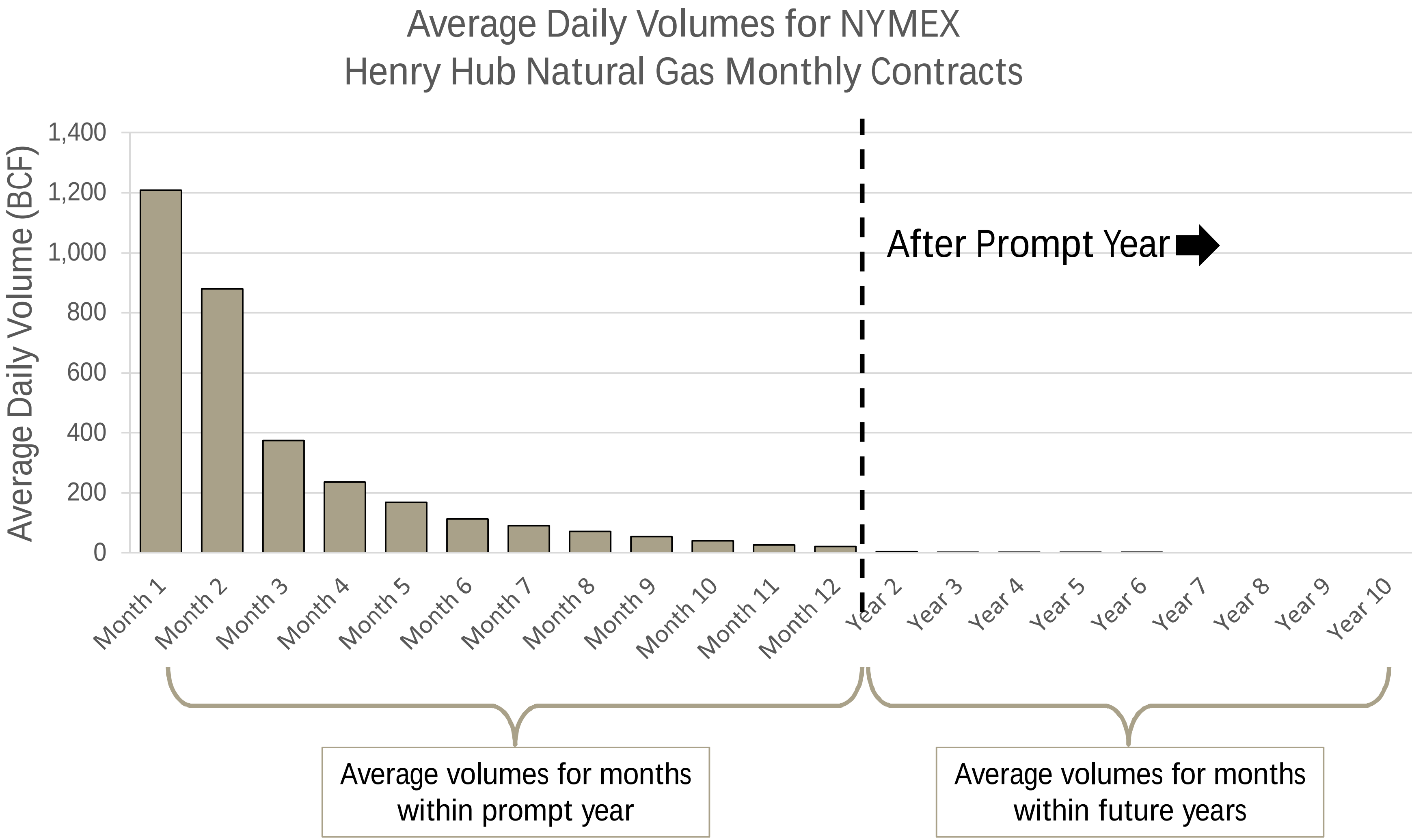
A long-term natural contract gas at a fixed price will typically include a provision for credit or collateral requirements. One party will be required to post collateral equal to the contract volume multiplied by the difference between the contract and current forward prices:

- If the forward price were to fall $1 below the contract price for a ten year 50 BCF/Year[1] gas purchase contract, Entergy would be required to post collateral of $50M for each contract year remaining, or $500M in total:



[1]A 500 MW combined cycle operating at an 85% capacity factor will require about 25 BCF of natural gas per year.

NYMEX Henry Hub Trading Volume



Growing Interest in Utility Purchases of Reserves

In recent news, various regulated utilities in the U.S. have announced purchases of gas reserves

- July 2015 – FPL received approval of a long-term program to spend up to $500M (~20% of annual usage) of gas in the ground in on behalf of its Florida electric customers
  - Initial purchases are in Oklahoma

- Jan 2016 - Xcel Energy (CO) gas LDC filed an application with the CPUC for a Cost of Service Gas Program to acquire Natural Gas assets

- Feb 2016 - In Alaska, Anchorage Municipal Light & Power, along with Chugach Electric Association, agreed to purchase a portion of the Cook Inlet Beluga River Unit natural gas field from ConocoPhillips ($152M)